

XX WPI: 1998-333329/29.
 DR P-PSDB: AAM62784.
 XX
 PT Mutant non-lethal Streptococcus pyrogenic exotoxin type C - useful
 PT for vaccines to protect from biological activity of wild type toxin
 PT e.g. to prevent or ameliorate streptococcal toxic shock syndrome
 PS
 PS Disclosure: Fig 1; 55pp; English.
 CC
 CC The present sequence encodes a Streptococcus pyrogenic exotoxin type C
 CC (SPE-C) toxin. Streptococcus pyrogenes is a pathogen of humans which can
 CC cause mild infections e.g. impetigo or severe acute diseases e.g.
 CC scarlet fever and STSS. SPE-C is thought to be associated with
 CC streptococcal toxic shock syndrome (STSS) and has several proposed
 CC biological activities, e.g. has been shown to block liver clearance of
 CC endotoxin and act as a "superantigen" i.e. induce T lymphocytes
 CC proliferation, resulting in abnormally high levels of circulating
 CC cytokines TNF- beta and IFN- gamma. The SPE-C protein is mutated (see
 CC AAM62785-88) to make it substantially non-lethal compared to wild-type
 CC SPE-C toxin. The mutant toxins are useful in vaccines which can be
 CC administered to animals (especially humans) to protect against at least
 CC one biological activity of a wild-type SPE-C. Such vaccines are
 CC especially useful to reduce symptoms associated with toxic shock such as
 CC STSS in humans.
 CC
 SQ Sequence 936 BP: 364 A; 144 C; 127 G; 301 T; 0 other;
 Query Match 100.0%; Score 936; DB 19; Length 936;
 Best Local Similarity 100.0%; Pred. NO. 2.9e-165;
 Matches 936; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAACCTTGACTATTAAATGAGACCTGCCACTCTAAACCTAAATATTAATACATTAT 60
 DB 1 CAACCTTGACTATTAAATGAGACCTGCCACTCTAAACCTAAATATTAATACATTAT 60
 QY 61 AAAATTTCTAATAAACAAGAAATGTGATTTTAACTACTACTCTATTTTCATGTTCT 120
 DB 61 AAAATTTCTAATAAACAAGAAATGTGATTTTAACTACTACTCTATTTTCATGTTCT 120
 QY 121 CGTACGATATACATTAAATAGGAGAAATGAAAGATTAACATCATCAATAATA 180
 DB 121 CGTACGATATACATTAAATAGGAGAAATGAAAGATTAACATCATCAATAATA 180
 QY 181 GTTTTCATTAATACAGTATCTACTGATTTCTACTATTTTCACTCAATCAAGGACTCT 240
 DB 181 GTTTTCATTAATACAGTATCTACTGATTTCTACTATTTTCACTCAATCAAGGACTCT 240
 QY 241 AAGAAGACATTTTGAATGTTAAAGTGAATTTACTTATGCAATCACTATAACTCTTAT 300
 DB 241 AAGAAGACATTTTGAATGTTAAAGTGAATTTACTTATGCAATCACTATAACTCTTAT 300
 QY 301 GATTATTAAGATTCGAGGTAAATTTTCAACGACACACATTAACATTGATACCA 360
 DB 301 GATTATTAAGATTCGAGGTAAATTTTCAACGACACACATTAACATTGATACCA 360
 QY 361 AAATATAGAGGAGAAAGACTATTATATTAGTTCGAAATGCTTATGAGGCTCTCAAAA 420
 DB 361 AAATATAGAGGAGAAAGACTATTATATTAGTTCGAAATGCTTATGAGGCTCTCAAAA 420
 QY 421 TTTTAACGAGATGATCATGTAGATGTTTGGATTTTATTAATTCCTTACACACC 480
 DB 421 TTTTAACGAGATGATCATGTAGATGTTTGGATTTTATTAATTCCTTACACACC 480
 QY 481 GGTAGTACATCTTGTGAGGAATTAACGCTGCTCTAAATATTAAGTAAATCATTAATTA 540
 DB 481 GGTAGTACATCTTGTGAGGAATTAACGCTGCTCTAAATATTAAGTAAATCATTAATTA 540
 QY 541 TTGGGAATCATTTATTTTGGGAGAAATCTCAACAGAACTTAATTAACAAGATTTACTTA 600
 DB 541 TTGGGAATCATTTATTTTGGGAGAAATCTCAACAGAACTTAATTAACAAGATTTACTTA 600
 QY 601 GAAAAGATATCTGTAACCTTCCAGAAATGACTTTAAATCAGAAATACCTTTATGAT 660

DB 601 GAAAAGATATCTGTAACCTTCCAGAAATGACTTTAAATCAGAAATACCTTATGAT 660
 QY 661 AATTATAAATTTATGACGCTACTTCTCTTATGTAACGGCAGAAATGAAATTTGGACA 720
 DB 661 AATTATAAATTTATGACGCTACTTCTCTTATGTAACGGCAGAAATGAAATTTGGACA 720
 QY 721 AAAGATGGGAACATGAGCAATAGACTTATTGACTCACCAGAAATGAGGACTAGATCA 780
 DB 721 AAAGATGGGAACATGAGCAATAGACTTATTGACTCACCAGAAATGAGGACTAGATCA 780
 QY 781 GATATTTTGGCAAAATATTAAGATTAATGATTAATGATTAATGAGAACTTATGCTATTC 840
 DB 781 GATATTTTGGCAAAATATTAAGATTAATGATTAATGATTAATGAGAACTTATGCTATTC 840
 QY 841 GATATTTATCTTGAAGAAATATTTATATCATACACAAAACCCGACAGATATATGACCG 900
 DB 841 GATATTTATCTTGAAGAAATATTTATATCATACACAAAACCCGACAGATATATGACCG 900
 QY 901 GTTTTGCTTATCTCGAGACTTACCTCCCTAATTTA 936
 DB 901 GTTTTGCTTATCTCGAGACTTACCTCCCTAATTTA 936

RESULT 2
 ABN69888
 ID ABN69888 standard; DNA: 705 BP.
 AC ABN69888;
 XX
 DT 01-JUL-2002 (first entry)
 XX
 DE Streptococcus polynucleotide SEQ ID NO 7689.
 XX
 KM Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
 KM group A streptococcus; Streptococcus pyogenes; antibacterial; gene;
 KM antiinflammatory; infection; vaccine; meningitis; gene therapy; ds.
 OS Streptococcus pyogenes.
 XX
 PN WO200234771-A2.
 XX
 PD 02-MAY-2002.
 XX
 PF 29-OCT-2001; 2001WO-G804789.
 PR 27-OCT-2000; 2000GB-0026333.
 PR 24-NOV-2000; 2000GB-0028727.
 PR 07-MAR-2001; 2001GB-0005640.
 PA (CHIR-) CHIRON SPA.
 PA (GENO-) INST GENOMIC RES.
 XX
 PI Telford J, Maignani V, Margarit Ros YI, Grandi G, Fraser C;
 PI Tetelin H;
 XX
 DR WPI: 2002-352536/38.
 DR P-PSDB: ABP29257.
 XX
 PT New Streptococcus protein for the treatment or prevention of infection
 PT or disease caused by Streptococcus bacteria, such as meningitis, and
 PT for detecting a compound that binds to the protein -
 PS
 PS Claim 7; Page 3906; 4525pp; English.
 CC
 CC The invention relates to a protein (ABP25413-ABP30895) from group B
 CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
 CC (Streptococcus pyogenes), comprising one of 5483 sequences (SI), given in
 CC the specification. The proteins have antibacterial and antiinflammatory
 CC activity. (1), nucleic acids encoding (1), ABN66044-ABN71526 and
 CC antibodies that bind (1) are used in the manufacture of medicaments for
 CC the treatment or prevention of infection or disease caused by
 CC Streptococcus bacteria, particularly S. agalactiae and S. pyogenes.

CC Nucleic acids encoding (I) are used to detect Streptococcus in a
 CC biological sample. (I) is used to determine whether a compound binds to
 CC (II). A composition comprising (I) or a nucleic acid encoding (I), may be
 CC used as a vaccine or diagnostic composition. The disease caused by
 CC Streptococcus that is prevented or treated may be meningitis. Nucleic
 CC acid encoding (I) may be used to recombinantly produce (I) and may be
 CC used in gene therapy. Antibodies to (I) are used for affinity
 CC chromatography, immunoassays, and distinguishing/identifying
 CC Streptococcus proteins.

XX Sequence 705 BP; 280 A; 101 C; 100 G; 224 T; 0 other;

Query Match 72.6%; Score 679.4; DB 24; Length 705;

Best Local Similarity 97.7%; Pred. No. 1.5e-117;
 Matches 689; Conservative 0; Mismatches 16; Indels 0; Gaps 0;

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OY 154 ATGAAAAGATTACATCATCAAAATAGTTTTCATTAATACAGTCATCTGATTTCTACT 213
DB 1 ATGAAAAGATTACATCATCAAAATAGTTTTCATTAATACAGTCATCTGATTTCTACT 60
OY 214 TATTTCACCTATCATCAAAAGTACTCTTAAGAAAGACATTTGCAATGTAAAGTATTTA 273
DB 61 ATTTACCTATCATCAAAAGTACTCTTAAGAAAGACATTTGCAATGTAAAGTATTTA 120
OY 274 CTTTATGCATACATCAATTAACCTTATGATTAATAAGATTGAGGTAATTTTTCACAG 333
DB 121 CTTTATGCATACATCAATTAACCTTATGATTAATAAGATTGAGGTAATTTTTCACAG 180
OY 334 ACACACACATTAACATTTGATCTCAAAATATAGAGGAAAGACATTTATTTAGTTTC 393
DB 181 ACACACACATTAACATTTGATCTCAAAATATAGAGGAAAGACATTTATTTAGTTTC 240
OY 394 GAAAGTCTTAAGAGCCCTCTCAAAATTTAAACGAGATGATCATGTATTTTGA 453
DB 241 GAAAGTCTTAAGAGCCCTCTCAAAATTTAAACGAGATGATCATGTATTTTGA 300
OY 454 TTATTTTATATCTTAATTTCTCACACCGGTGATGATCATGTATGAGGAATTTACGCTGCT 513
DB 301 TTATTTTATATCTTAATTTCTCACACCGGTGATGATCATGTATGAGGAATTTACGCTGCT 360
OY 514 CAAAATTAATAGTAATATCAATTAATTTATGGAATCTATTTATTTTGGGAGAAATCTCA 573
DB 361 CAAAATTAATAGTAATATCAATTAATTTATGGAATCTATTTATTTTGGGAGAAATCTCA 420
OY 574 CAGAACTTAATTAACAGATTTATCTAGAAAAGATATGCTACTTTCCAGGAAATGAC 633
DB 421 CAGAACTTAATTAACAGATTTATCTAGAAAAGATATGCTACTTTCCAGGAAATGAC 480
OY 634 TTTAAATCAGAAAATACCTTATGATTAATTTATTAATTTATGAGCTACTTCTCTTAT 693
DB 481 TTTAAATCAGAAAATACCTTATGATTAATTTATTAATTTATGAGCTACTTCTCTTAT 540
OY 694 GTTAACGGCAGAAATGGAATTTGGCACAAAAGATGGGAAACATGAGCAATTAACCTTAT 753
DB 541 GTTAACGGCAGAAATGGAATTTGGCACAAAAGATGGGAAACATGAGCAATTAACCTTAT 600
OY 754 GACTACACCAATGAAGGAGCTAGATCAGATTTTTCGAAATPATTAAGATTAATGAAT 813
DB 601 GACTACACCAATGAAGGAGCTAGATCAGATTTTTCGAAATPATTAAGATTAATGAAT 660
OY 814 ATCAATATGAGAACTTTAGTATTCGATTTATTTCTTGAATAA 858
DB 661 ATCAATATGAGAACTTTAGTATTCGATTTATTTATCTTGAATAA 705

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RESULT 3
 AAD41385
 ID AAD41385 standard; DNA; 621 BP.

XX AAD41385;

XX 30-OCT-2002 (first entry)

DT

XX

DE Streptococcus pyogenes pyrogenic exotoxin C (SPEC) wild-type DNA.

KW Immunomodulator; antigen-presenting-cell; APC; immune system; infection;
 KW autoimmunity; allergy; neoplastic; antibiotic; virulence; parasiticide;
 KW immunosuppressive; Streptococcus pyogenes pyrogenic exotoxin C; SPEC;
 KW fungicide; cytostatic; gene; ds.

XX Streptococcus pyogenes.

XX Key Location/Qualifiers

EH CDS 1..621

FT /tag= a

FT /product= "SPEC wild-type protein"

FT /note= "No start codon"

FT /partial

XX WO200245739-A1.

XX 13-JUN-2002.

XX 04-DEC-2001; 2001MO-NZ00267.

XX 04-DEC-2000; 2000US-251243P.

XX (AUCK-) AUCKLAND UNISERVICES LTD.

XX Fraser JD, Nicholson MJ;

XX WPI; 2002-537539/57.

XX P-PSDB; AAE41385.

XX Immunomodulator comprising an antigen-presenting-cell targeting

PT molecule coupled to an immunomodulatory antigen, useful for treating

PT e.g. bacterial, viral, fungal or parasitic infections, autoimmunity and

PT allergy

XX Example 3; Page 16; 47pp; English.

XX The present invention relates to a novel immunomodulator comprising an
 CC antigen-presenting-cell (APC) targeting molecule (which mimics a super-
 CC antigen but does not include a fully functional T-cell receptor binding
 CC site) coupled to an immunomodulatory antigen. The APC-targeting molecule
 CC is Streptococcus pyogenes pyrogenic exotoxin C (SPEC) or SNEZ or SEA. The
 CC immunomodulator is useful for the treatment of disorders which require
 CC induction or stimulation of the immune system, including viral, fungal,
 CC bacterial, or parasitic infections, autoimmunity, allergy and neoplastic
 CC or pre-neoplastic transformation. The present sequence is S. pyogenes
 CC pyrogenic exotoxin C (SPEC) wild-type DNA. This sequence is used in the
 CC exemplification of the invention.

XX Sequence 621 BP; 241 A; 87 C; 97 G; 196 T; 0 other;

Query Match 66.3%; Score 621; DB 24; Length 621;
 Best Local Similarity 100.0%; Pred. No. 1.1e-106;
 Matches 621; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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OY 235 GACTCTAAGAAACACATTTTCGATGTTTAAAGATTTTACTTATGATACATATAACT 294
DB 1 GACTCTAAGAAACACATTTTCGATGTTTAAAGATTTTACTTATGATACATATAACT 60
OY 295 CCTTATGATTTTAAATTTGAGGTAATTTTTCACAGCACACACATTAACATTTGAT 354
DB 61 CCTTATGATTTTAAATTTGAGGTAATTTTTCACAGCACACACATTAACATTTGAT 120
OY 355 ACTCAAAAATATAGAGGAAAGACTATTTATTTAGTTCCGAAATGCTTATGAGGCTCT 414
DB 121 ACTCAAAAATATAGAGGAAAGACTATTTATTTAGTTCCGAAATGCTTATGAGGCTCT 180
OY 415 CAAAATTTAAACGAGATGATCATGTAATGTTTTCGATTTTATTTATTTATTTATTTCT 474
DB 181 CAAAATTTAAACGAGATGATCATGTAATGTTTTCGATTTTATTTATTTATTTATTTCT 240
OY 475 CACACCGGTGATGATCATGTAATGAGGAATTTACGCTGCTCAAAATTAATGAATCAT 534

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Db 241 CACACCGGTGAGTACATCTATGAGGAAATTAACCGCTGCTCAAAATATATAAGTAATCAT 300
QY 535 AATTTATTTGGGAATCTATTTATTTGGGGAATCTCAAGAACTTAATAACAGATT 594
Db 301 AATTTATTTGGGAATCTATTTATTTGGGGAATCTCAAGAACTTAATAACAGATT 360
QY 595 ATTCTGAAAAGATATCGTAACCTTTCAGAAATGACCTTTAAATCAGAAATACCTT 654
Db 361 ATTCTGAAAAGATATCGTAACCTTTCAGAAATGACCTTTAAATCAGAAATACCTT 420
QY 655 ATGGATTAATTAATAAATTTATGACGCTACTCTCTCTTANGTAAGCGGAGAAATGAAAT 714
Db 421 ATGGATTAATTAATAAATTTATGACGCTACTCTCTCTTANGTAAGCGGAGAAATGAAAT 480
QY 715 GGCACAAAAGATGGAAGATGAGCAATGACCTTTATTTGACCTCACCACCAATGAGGACT 774
Db 481 GGCACAAAAGATGGAAGATGAGCAATGACCTTTATTTGACCTCACCACCAATGAGGACT 540
QY 775 AGATCAGATATTTTTCACAAATATAAGATATGATATATCAATATGAGAACTTTAGT 834
Db 541 AGATCAGATATTTTTCACAAATATAAGATATGATATATCAATATGAGAACTTTAGT 600
QY 835 CATTGATATTTATCTTGAA 855
Db 601 CATTGATATTTATCTTGAA 621

RESULT 4
AAD41386 standard; DNA: 621 BP.
ID AAD41386
AC AAD41386;
DT 30-OCT-2002 (first entry)
XX
XX Streptococcus pyogenes pyrogenic exotoxin C (SPEC) DNA.
DE
KW Immunomodulator; antigen-presenting-cell; APC; immune system; infection;
KW autoimmunity; allergy; neoplastic; antibiotic; virucide; parasiticide;
KW immunosuppressive; Streptococcus pyogenes pyrogenic exotoxin C; SPEC;
KW fungicide; cytostatic; ds.
XX
OS Streptococcus pyogenes.
XX
PN WO200245739-A1.
XX
PD 13-JUN-2002.
XX
PF 04-DEC-2001; 2001WO-NZ00267.
XX
PR 04-DEC-2000; 2000US-251243P.
XX
PA (AUCC-) AUCCLAND UNISERVICES LTD.
XX
PI Frazer JD, Nicholson MJ;
XX
DR WPI: 2002-537539/57.
XX
XX Immunomodulator comprising an antigen-presenting-cell targeting
PT molecule coupled to an immunomodulatory antigen, useful for treating
PT e.g. bacterial, viral, fungal or parasitic infections, autoimmunity and
PT allergy -
XX
XX Example 3; Page 16; 47pp; English.
XX
XX The present invention relates to a novel immunomodulator comprising an
CC antigen-presenting-cell (APC) targeting molecule (which mimics a super-
CC antigen but does not include a fully functional T-cell receptor binding
CC site) coupled to an immunomodulatory antigen. The APC-targeting molecule
CC is Streptococcus pyogenes pyrogenic exotoxin C (SPEC) or SMEZ or SEA. The
CC immunomodulator is useful for the treatment of disorders which require
CC induction or stimulation of the immune system, including viral, fungal,

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CC bacterial, or parasitic infections, autoimmunity, allergy and neoplastic
CC or pre-neoplastic transformation. The present sequence is S. pyogenes
CC pyrogenic exotoxin C (SPEC) DNA. This sequence is used in the
CC exemplification of the invention.
XX
XX Sequence 621 BP; 243 A; 87 C; 95 G; 196 T; 0 other;
SQ
Query Match 66.0%; Score 617.8; DB 24; Length 621;
Best Local Similarity 99.7%; Pred. No. 4.2e-106;
Matches 619; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
QY 235 GACTCTAAGAAAGACATTTGCAATGTTAAAGATTTACTTTATGCAATACACTATTAAC 294
Db 1 GACTCTAAGAAAGACATTTGCAATGTTAAAGATTTACTTTATGCAATACACTATTAAC 60
QY 295 CCTTATGATTTATTAAGATTCGAGGTAATTTTTCACACGACACACATTAACATTGAT 354
Db 61 CCTTATGATTTATTAAGATTCGAGGTAATTTTTCACACGACACACATTAACATTGAT 120
QY 355 ACTCAAAAATATAGAGGGAAGACTATTAATATAGTTCCGAATGCTTATGAGGCTCT 414
Db 121 ACTCAAAAATATAGAGGGAAGACTATTAATATAGTTCCGAATGCTTATGAGGCTCT 180
QY 415 CAAAAATTTAAACGAGATGATCATGTAGATGTTTTGGATTTATTAATCTTAATTC 474
Db 181 CAAAAATTTAAACGAGATGATCATGTAGATGTTTTGGATTTATTAATCTTAATTC 240
QY 475 CACACCGGTGAGTACATCTATGAGGAAATTAACGCTGCTCAAAATATAAGTAATCAT 534
Db 241 CACACCGGTGAGTACATCTATGAGGAAATTAACGCTGCTCAAAATATAAGTAATCAT 300
QY 535 AATTTATTTGGGAATCTATTTATTTGGGGAATCTCAAGAACTTAATAACAGATT 594
Db 301 AATTTATTTGGGAATCTATTTATTTGGGGAATCTCAAGAACTTAATAACAGATT 360
QY 595 ATTCTGAAAAGATATCGTAACCTTTCAGAAATGACCTTTAAATCAGAAATACCTT 654
Db 361 ATTCTGAAAAGATATCGTAACCTTTCAGAAATGACCTTTAAATCAGAAATACCTT 420
QY 655 ATGGATTAATTAATAAATTTATGACGCTACTCTCTCTTANGTAAGCGGAGAAATGAAAT 714
Db 421 ATGGATTAATTAATAAATTTATGACGCTACTCTCTCTTANGTAAGCGGAGAAATGAAAT 480
QY 715 GGCACAAAAGATGGAAGATGAGCAATGACCTTTATTTGACTCACCACCAATGAGGACT 774
Db 481 GGCACAAAAGATGGAAGATGAGCAATGACCTTTATTTGACTCACCACCAATGAGGACT 540
QY 775 AGATCAGATATTTTTCACAAATATAAGATATGATATATCAATATGAGAACTTTAGT 834
Db 541 AGATCAGATATTTTTCACAAATATAAGATATGATATATCAATATGAGAACTTTAGT 600
QY 835 CATTGATATTTATCTTGAA 855
Db 601 CATTGATATTTATCTTGAA 621

RESULT 5
AAD41370 standard; DNA: 432 BP.
ID AAD41370
AC AAD41370;
DT 30-OCT-2002 (first entry)
XX
XX Streptococcus pyogenes pyrogenic exotoxin C (SPEC) truncated DNA.
DE
KW Immunomodulator; antigen-presenting-cell; APC; immune system; infection;
KW autoimmunity; allergy; neoplastic; antibiotic; virucide; parasiticide;
KW immunosuppressive; Streptococcus pyogenes pyrogenic exotoxin C; SPEC;
KW fungicide; cytostatic; gene; ds.
XX
OS Streptococcus pyogenes.
XX

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[illegible][illegible]

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Db      72 TAGTAAATATTTAAGACGTTAAGCTACATTAATAATACCATACGAAATCATACAGT 131
Oy      300 TGATTATTAAGATTCAGGGTAATTTTTCAGACACACACATTAACATGATGATCCCA 359
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      132 AGATTATACGATTTGATATATGATTTACTTGACATGATGATTTTATGATATTTTC 191
Oy      360 AAAATATAGAGGAAGACATTTATATATAGTTCCGAATGTCTTATGAGCCCTCCAAA 419
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      192 CAGTTATATAAGAAATTTTCAGTTGATGAGTGCAGAGCATATATTACAAACAA 251
Oy      420 ATTTAAACGAGATCATGATGATGTTTGGATTTATTTATTTCTTAATTCACAC 479
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      252 GTTTACGAAAAATAAAAAGTAATATTTTGGCTTCCTCCGATATTTCTGTTATGA 311
Oy      480 CGGTAGTACATCTATGAGGAATTTACGCCCTGCTCAAAA--TATTAAGTAATCATTA 536
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      312 TGTATTATATATATGTTGGGTTACACCATCACTAAACAGTAAATTCGAAAAATAGTA 371
Oy      537 ATTATTTGGAATCTATTTATTTGCGGAATCTCAACAGACTTAATTAACAAGATTAT 596
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      372 AATTGTAGTAAATTTACTAATAGATGAGTCCAGCAAAAAACCTAATTAATCCCATAAA 431
Oy      597 TCTGAAAGAGATATCGTAACCTTCCAGAAATGACTTTAATTCAGAAATACCTTAT 656
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      432 AATGATTAACCTATTTTTCAGATTCAGAAATTTGACTTCAAAATTCAGACATATCTAT 491
Oy      657 GGATTAATTTAATTAATTTATGACGCTACTCTCTTATGTAAGCGGAGCAATCGAATTTGG 716
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      492 GCAAAACATACAAATTTATGATCTTANTCTCCATACATAAAGGCAATTTAGAAATTCG 551
Oy      717 CACAAAGATGGGAACATGACAAATAGACTTATTTGACTCACCAATGAAGGACTAG 776
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      552 GATCAATGCGCAATTAAGATGAAGTTTAACTTATATGATCAACCTCATCTAGTACAAG 611
Oy      777 ATCATATTTTTCGCAAAATTAAGATTAATAGAAATTAATGAAGAACTTATGCA 836
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      612 GAGTGATATTTTAAATAATTAAGACAAATAGACTATTAATATGAAGATTTTCAGCA 671
Oy      837 TTTGATATTTATCTT 852
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      672 TTTGATATTTACCTT 687

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RESULT 7
AAAA7149
ID AAA47149 standard; DNA; 414 BP.
XX
AC AAA47149;
XX
DT 03-OCT-2000 (first entry)
XX
DE DNA encoding the mature SPE-J superantigen protein.
XX
KW Speranligen; SMEZ-2; SPE-G; SPE-H; SPE-J; Streptococcal disease;
KW Kawasaki syndrome; T cell activation; cancer therapy; ss.
XX
OS Streptococcus pyogenes.
XX
FH Key 1.414 Location/Qualifiers
FT CDS /*tag= a
FT /product= "SPE-J"
XX
PD WO200039159-A1.
XX
PD 06-JUL-2000.
XX
PF 24-DEC-1999; 99WO-NZ00228.
XX
PR 24-DEC-1998; 98NZ-0333589.
XX
PA (AUCK-) AUCKLAND UNISERVICES LTD.
XX

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PI Fraser JD, Profit T;
XX
DR WPI: 2000-452370/39.
DR P-PSDB: AAY93744.
XX
PT Novel superantigens from streptococcus pyogenes useful for genotyping
PT streptococcus pyogenes clones expressing SMEZ-2 and for diagnosing a
PT Kawasaki syndrome -
XX
PS Claim 13: Fig 5; 72pp; English.
XX
CC The present sequence encodes the SPE-J superantigen protein. The
CC specification describes superantigen proteins SMEZ-2, SPE-G, SPE-H
CC and SPE-J. The superantigen polynucleotides and polypeptides are
CC used for subtyping Streptococci. They are also used for diagnosing
CC Streptococcal disease. The superantigens are used in diagnosis of
CC disease such as Kawasaki syndrome. They are also useful to recruit
CC and activate T cells in a relatively non-specific fashion since
CC they bind a large number of T cell receptor molecules by binding to the
CC Vbeta domain. Superantigen constructs are useful in cancer therapy.
XX
SQ Sequence 414 BP; 170 A; 59 C; 55 G; 130 T; 0 other;

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Query Match 15.9%; Score 148.4; DB 21; Length 414;
Best Local Similarity 62.1%; Pred. No. 8e-19;
Matches 252; Conservative 0; Mismatches 151; Indels 3; Gaps 1;

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Oy      460 TATATTTCTTAATTTCTACACCGGTGATGATCTATGAGGAATTTAGCCCTGCTCAAAA- 518
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      7 TACATATTTTACTCGTTATGATGTTTATATATATATGTTGGGTTACCAACATCAGTAAC 66
Oy      519 --TATTAAGTAATTAATTAATTTATTTGGAATCTATTTATTTGCGGAGAAATCTCAACAG 576
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      67 AGTATTTGCGAAATATAGTAATAATTTAGTATTTTACTAATAGATGGAGTCCACAAAA 126
Oy      577 AACTTAATTAACAAGATTTCTAGAAAGATATCTACTTCCAGGAATTTGACTTT 636
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      127 ACCTAATTAATTTCCATTAATAAATAGATAAACCCTATTTTACGATTTCAAGAAATTTGACTTC 186
Oy      637 AAATTCAGAAATATCTCTTATGATTAATTAATTAATTAATGCGTACTCTCCCTATGTA 696
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      187 AAATTCAGACATATCTTATGCAACATACAAATTAATTAATTAATTTCCATACATA 246
Oy      697 AGCGCAGAAATCGAAATTTGGCACAAGAGATGGAACATGACAAATAGACTTATTTGAC 756
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      247 AAAGGCAATTAGAAATTTGCGATGATGCGCATTAACATGAAGTTTAACTTATATGAT 306
Oy      757 TCACCAATGACAGGACTAGATCGATATTTTTCGCAAAATTAATTAAGATATAGATTATC 816
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      307 GCAACCTCATCTAGTACAGAGAGTATTTTAAATAATTAAGACAAATAGACTATA 366
Oy      817 AATATGAAGAACTTATGATTAATTTTATGATTTATCTGAAATATAT 862
        ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      367 AATATGAAGATTTTCAGCCATTTTGAATATTTACCTTTGAGACTAAT 412

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RESULT 8
ABN69723
ID ABN69723 standard; DNA; 702 BP.
XX
AC ABN69723;
XX
DT 01-JUL-2002 (first entry)
XX
DE Streptococcus polynucleotide SEQ ID NO 7359.
XX
KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
KW group A streptococcus; Streptococcus pyogenes; antibacterial; gene;
KW antiinflammatory; infection; vaccine; meningitis; gene therapy; ds.
XX
OS Streptococcus pyogenes.
XX
PD WO200234771-A2.
XX

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XX 02-MAY-2002.
PD
XX
PE 29-OCT-2001: 2001MO-GB04789.
PR 27-OCT-2000: 2000GB-0026333.
PR 24-NOV-2000: 2000GB-0028727.
PR 07-MAR-2001: 2001GB-0005640.
XX
XX (CHIR-) CHIRON SPA.
PA (GENO-) INST GENOMIC RES.
XX
PI Telford J, Maignani V, Margarit Ros YI, Grandi G, Fraser C;
PI Tectelin H;
XX
XX WPI: 2002-352536/38.
DR P-PSDB: ABP29092.
XX
XX New Streptococcus protein for the treatment or prevention of infection
PT or disease caused by Streptococcus bacteria, such as meningitis, and
PT for detecting a compound that binds to the protein.
XX
PS Claim 7: Page 3886; 4525bp; English.
XX
XX The invention relates to a protein (ABP25413-ABP30895) from group B
CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (S1), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (1), nucleic acids encoding (1), ABN6044-ABN71526 and
CC antibodies that bind (1) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyogenes.
CC Nucleic acids encoding (1) are used to detect Streptococcus in a
CC biological sample. (1) is used to determine whether a compound binds to
CC (1). A composition comprising (1) or a nucleic acid encoding (1), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (1) may be used to recombinantly produce (1) and may be
CC used in gene therapy. Antibodies to (1) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
CC Streptococcus proteins.
XX
XX Sequence 702 BP; 261 A; 83 C; 113 G; 245 T; 0 other:
SQ
Query Match 14.98; Score 139.8; DB 24; Length 702;
Best Local Similarity 53.98; Pred. No. 3.3e-17;
Matches 3/6; Conservative 0; Mismatches 312; Indels 9; Gaps 4;
QY 169 ATCATCAAAATAGTTTTCATATATACAGTATCTAGTCTATTTTCACTATATCAT 228
Db 1 ATGAAAACAAACATTTTGACATATATCATATGATGTTTGTAGCTATGGAAGTCAA 60
QY 229 CAAAGTACTCTAAGAAAGACATTTGCAATGTTAAAGATTTACTTTATGATACACT 288
Db 61 TTAGCTTATGACAGATGAAATTTAAAGATTTAAAGAGATTTAAGATTTGCTTAAT 120
QY 289 ATACCTCTTATATATATATAGATTCGAGGTAAATTTTCAACGACACACATTAAC 348
Db 121 ATTACCCCATGATGATTTAGAAATGTAGAAATTTGCATTTTCTCTAATAATATGACAT 180
QY 349 ATGATACCTCAAAATATATAGAGGAAAGACTA--TTATATTAGTTCCGAATCTTTAT 405
Db 181 ATTAATATCTAAACAAAAAATATCGAATCTATTTCTTTATTTGATTTCTATTTATCTT 240
QY 406 GAGGCTCTCAAAATTTTAAACGATGATGATGATGATTTTGGATTTATTTATATTT 465
Db 241 GGCATTACTGATGATTTATATAAAGGAGATAGGTGATGTTTGGTCTCCCTTATAAT 300
QY 466 CTTAATTTCCACACCGGTGATGATGATGATGATGATGATGATGATGATGATGATGAT 524
Db 301 TTTTCCCTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 360
QY 525 AGTAATATCATTAATTTATTTGGGAATCTATTTATTTTGGGGAATCTCAACGAACCTTAA 584

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Db 361 AATAAATCATTTACAGTTTGTAGAAATTTTAAATCAAGATGGAAGAACTATTTCGCC 420
QY 585 TAACAG--ATTATTTAGAAAGATATGTAATCTTCCAGAAATGCTTTAAATC 642
Db 421 TCTGAGGCTGTTGCAATTAAGAAACAGTACTTACAGGAATTTGATTTAAATA 480
QY 643 AGAAATACCTTATGATTAATTTAAATTTATGAGCTCTCTCTCTATGTAAGCGGC 702
Db 481 AGAAATTTCTATGGAATAATATCAATCTATGATTTGGAATCGGTTATACTCGGGG 540
QY 703 AGAATCGAAATTTGACAAAGATGGAACATGACGAATAGACTATTTGACTCACCA 762
Db 541 AGCCTTTCTCTGCTACTTAAGATAGTAACATTTATGACTGATTTATTAATAGAT 600
QY 763 AATGAGGAGCTAGATCAGA--TATTTTGCATAATATAGATTAATAGATTAATCAAT 819
Db 601 GATPAGCTTTTAAGTACGACAGACTTCTTAAAGATATAAGATTAATAGATTTTAAT 660
QY 820 ATGAGAACTTTAGTCTCATTTGATTTATCTTGAAT 856
Db 661 AGTGAGAAATTTAGTCTATTTGATTTCTACTTAAATA 697

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RESULT 9
AAA47147
ID AAA47147 standard; DNA: 705 BP.
XX
AC AAA47147:
XX
DT 03-OCT-2000 (first entry)
XX
DE DNA encoding the mature SPE-G superantigen protein.
XX
XX Sperantigen; SMEZ-2; SPE-G; SPE-H; SPE-J; Streptococcal disease;
KW Kawasaki syndrome; T cell activation; cancer therapy; ss.
XX
OS Streptococcus pyogenes.
XX
FH Location/Qualifiers
FT CDS
FT 1..705
FT /*tag= a
FT /product= "SPE-G"
XX
PN W0200039159-A1.
PD 06-JUL-2000.
XX
XX 24-DEC-1999: 99WO-NZ00228.
XX
XX 24-DEC-1998: 98NZ-0333589.
XX
XX (AUCK-) AUCKLAND UNISERVICES LTD.
XX
XX Fraser JD, Proft T;
XX
XX WPI: 2000-452370/39.
XX
XX P-PSDB: AAY93742.
XX
XX Novel superantigens from streptococcus pyogenes useful for genotyping
PT streptococcus pyogenes clones expressing SMEZ-2 and for diagnosing a
PT Kawasaki syndrome
XX
XX Claim 9, Fig 3; 72pp; English.
XX
XX The present sequence encodes the SPE-G superantigen protein. The
CC specification describes superantigen proteins SMEZ-2, SPE-G, SPE-H
CC and SPE-J. The superantigen polynucleotides and polypeptides are
CC used for subtyping Streptococci. They are also used for diagnosing
CC Streptococcal disease. The superantigens are also useful in diagnosis of
CC disease such as Kawasaki syndrome. They are also useful to recruit
CC and activate T cells in a relatively non-specific fashion since
CC they bind a large number of T cell receptor molecules by binding to the

XX DE Streptococcus polynucleotide SEQ ID NO 9147.
XX XX
KM Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;
KM group A streptococcus; Streptococcus pyogenes; antibacterial; gene;
KM antiinflammatory; infection; vaccine; meningitis; gene therapy; ds.
OS Streptococcus pyogenes.
XX XX
PN WO200234771-A2.
XX XX
PD 02-MAY-2002.
XX XX
PF 29-OCT-2001; 2001WO-GB04789.
XX XX
PR 27-OCT-2000; 2000GB-0026333.
PR 24-NOV-2000; 2000GB-0028727.
PR 07-MAR-2001; 2001GB-0005640.
XX XX
PA (CHIR-) CHIRON SPA.
PA (GENO-) INST GENOMIC RES.
XX XX
PI Telford J, Maignani V, Margarit Ros YI, Grandi G, Fraser C;
PI Tetelin H;
XX XX
DR MPI: 2002-352536/38.
DR P-PSDB: ABP29986.
XX XX
PT New Streptococcus protein for the treatment or prevention of infection
PT or disease caused by Streptococcus bacteria, such as meningitis, and
PT for detecting a compound that binds to the protein -
XX XX
PS Claim 7; Page 4037; 4525pp; English.
XX XX
CC The invention relates to a protein (ABP25413-ABP30895) from group B
CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (S1), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (1), nucleic acids encoding (1), ABN6604-ABN71526 and
CC antibodies that bind (1) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyogenes.
CC Nucleic acids encoding (1) are used to detect Streptococcus in a
CC biological sample. (1) is used to determine whether a compound binds to
CC (1). A composition comprising (1) or a nucleic acid encoding (1), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (1) may be used to recombinantly produce (1) and may be
CC used in gene therapy. Antibodies to (1) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
CC Streptococcus proteins.
XX XX
SQ Sequence 207 BP; 91 A; 26 C; 30 G; 60 T; 0 other;
Query Match 11.2%; Score 105.2; DB 24; Length 207;
Best Local Similarity 70.7%; Pred. No. 8.3e-11;
Matches 140; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

RESULT 12
AAA47146
ID AAA47146 standard; DNA; 702 BP.
XX XX
AC AAA47146;
XX XX
DT 03-OCT-2000 (first entry)
XX XX
DE DNA encoding the mature SMEZ-2 superantigen protein.
XX XX
KM Sperantigen; SMEZ-2; SPE-G; SPE-H; SPE-J; Streptococcal disease;
KM Kawasaki syndrome; T cell activation; cancer therapy; ss.
XX XX
OS Streptococcus pyogenes.
XX XX
FH Key Location/Qualifiers
FT 1..702
FT CDS /*tag= a
FT /product= "SMEZ-2"
XX XX
PN WO200039159-A1.
XX XX
PD 06-JUL-2000.
XX XX
PF 24-DEC-1999; 99WO-N200228.
XX XX
PR 24-DEC-1998; 98NZ-0333589.
XX XX
PA (AUCK-) AUCKLAND UNISERVICES LTD.
XX XX
PI Fraser JD, Profit T;
XX XX
DR MPI: 2000-452370/39.
DR P-PSDB: AAY93741.
XX XX
PT Novel superantigens from streptococcus pyogenes useful for genotyping
PT streptococcus pyogenes clones expressing SMEZ-2 and for diagnosing a
PT Kawasaki syndrome -
XX XX
PS Claim 7; Fig 2; 72pp; English.
XX XX
CC The present sequence encodes the SMEZ-2 superantigen protein. The
CC specification describes superantigen proteins SMEZ-2, SPE-G, SPE-H
CC and SPE-J. The superantigen polynucleotides and polypeptides are
CC used for subtyping Streptococci. They are also used for diagnosing
CC Streptococcal disease. The superantigens are used in diagnosis of
CC disease such as Kawasaki syndrome. They are also useful to recruit
CC and activate T cells in a relatively non-specific fashion since
CC they bind a large number of T cell receptor molecules by binding to the
CC Vbeta domain. Superantigen constructs are useful in cancer therapy.
XX XX
SQ Sequence 702 BP; 268 A; 103 C; 100 G; 231 T; 0 other;
Query Match 10.0%; Score 93.2; DB 21; Length 702;
Best Local Similarity 49.5%; Pred. No. 1.5e-08;
Matches 307; Conservative 0; Mismatches 298; Indels 15; Gaps 2;

Db 263 ATAAATAGCTGTGTTCTCCGCCATTGATTGGAACTATTATCAAAAGGAAGTCA 322
Oy 482 GTGATACATCTATGAGAGAAATTAAGCTGCTGCAAAATATAAAGTAATATATAT 541
Db 323 CAGCATATACCTATGCTGATGATACACCTTACCAAAATCTTCAATACCTAATAATATCC 382
Oy 542 TGGGAATCTATTTATTTGGGAGAAATCTCAACAGAACTTAATTAACAAGATTATCTAG 601
Db 383 CTGTTAATTTATGATTAATGAAAGCAGATCTCTGTTCTTCAACAAGAAATATCACTA 442
Oy 602 AAAAGCATATGCTAACTTCCAGGAATGACTTAATAATCAGAAATACCTTATAGATA 661
Db 443 ACAAAACACAGATTACACCTCAAGAAATTAAGTTAGAAATTTTAAATGAGAC 502
Oy 662 ATTATTAATTTATGACCTTCTCTCTTATGTAAGGAGCAATGCAAAATGSCACAA 721
Db 503 AACATCATATATATCTCTGTTCTGTTCTACCAAAAGTGTAAGATGTTTTCATACAA 562
Oy 722 AAGATGGAAACATGAGCAAAATGACTTATTTGACTCACAAGTAAGGAGCTAGATCAG 781
Db 563 ATGATTAATTCAGATTAATATTTCTTTCGATCTTTCTATGATGATATGAGATTAAGAA 622
Oy 782 ATATTTTGCAGAAATATAAGATTAATTAATTAATTAATTAATTAATTAATTAATTA 841
Db 623 GTATCTTTAAAGTATACAAAGCAATTAATCTTCAATATAGATTAATTTGGCATTTAG 682
Oy 842 ATATTTATCTGAAAAATTA 861
Db 683 ATATGAATTTGACCTCTAA 702

RESULT 13

ABN70196

ID ABN70196 standard; DNA: 774 BP.

XX AC ABN70196:

XX DT 01-JUL-2002 (first entry)

XX DE Streptococcus polynucleotide SEQ ID NO 8305.

XX KW Streptococcus: GAS; GBS; group B streptococcus; Streptococcus agalactiae;

XX KM group A streptococcus; Streptococcus pyogenes; antibacterial; gene;

XX OS antiinflammatory; infection; vaccine; meningitis; gene therapy; ds.

XX OS Streptococcus pyogenes.

XX PN WO200234771-A2.

XX PD 02-MAY-2002.

XX PF 29-OCT-2001; 2001WO-GB04789.

XX PR 27-OCT-2000; 2000GB-0026333.

XX PR 24-NOV-2000; 2000GB-0028727.

XX PR 07-MAR-2001; 2001GB-0005640.

XX PA (CHIR-) CHIRON SPA.

XX PA (GENO-) INST GENOMIC RES.

XX PI Telford J, Maignant V, Margarit Ros YI, Grandi G, Fraser C;

XX PI Telford J, Maignant V, Margarit Ros YI, Grandi G, Fraser C;

XX PT New Streptococcus protein for the treatment or prevention of infection

XX PT or disease caused by Streptococcus bacteria, such as meningitis, and

XX PT for detecting a compound that binds to the protein -

XX PS Claim 7; Page 3946; 4525pp; English.

XX CC The invention relates to a protein (ABP25413-ABP30895) from group B

CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences (SI), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (I), nucleic acids encoding (I), ABN6044-ABN71526 and
CC antibodies that bind (I) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyogenes.
CC Nucleic acids encoding (I) are used to detect Streptococcus in a
CC biological sample. (I) is used to determine whether a compound binds to
CC (I). A composition comprising (I) or a nucleic acid encoding (I), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (I) may be used to recombinantly produce (I) and may be
CC used in gene therapy. Antibodies to (I) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
CC Streptococcus proteins.

SQ Sequence 774 BP; 295 A; 104 C; 111 G; 264 T; 0 other;

Query Match 9.7%; Score 91; DB 24; Length 774;

Best Local Similarity 49.4%; Pred. No. 3.9e-08;

Matches 303; Conservative 0; Mismatches 295; Indels 15; Gaps 2;

Oy 257 ATGTTAAAGTATTTACTTATGCTATACCTATTAATCTTATGATTAATTAAGATTGCA 316
Db 158 ATAAATATTCCTCTTAAGATATCTATGATGATGATTAATTAATTAATTAATTAATTA 217
Oy 317 GGGTAATTTTTCACGACACACATTAATTAATTAATTAATTAATTAATTAATTAATTA 373
Db 218 TAATTTGATTTTAAACCGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 277
Oy 374 AAGATATTTATTTAGTCCGAAATGCTTATGAGGCTCTCAAAATTTTAAGAGATG 433
Db 278 GAGATTTTATTTATTAACCTCAAAATGATGATTAATTAATTAATTAATTAATTAATTA 337
Oy 434 ATCAATGATGATTTTGGATTTATTTATTTATTTATTTATTTATTTATTTATTTATTT 481
Db 338 ATAAATGATGATTTTGGATTTATTTATTTATTTATTTATTTATTTATTTATTTATTT 397
Oy 482 GTGATCATCTATGAGAGATTTAGCCTGCTCAAAATTAATTAATTAATTAATTAATTA 541
Db 398 TAGATATATCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 457
Oy 542 TGGGAATCTATTTATTTGGGAGAAATCTCAAGAACTTAATTAATTAATTAATTAATTA 601
Db 458 CTGTTAATTTATGATTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 517
Oy 602 AAAAGATATGCTATTTCCAGGAATTTGACTTTAAATGAGAAATATCTTATATGATA 661
Db 518 ACAAAACACAGATTACAGCTCAAGAAATTTGATTAAGTTAAGAAATTTTAAATATCAC 577
Oy 662 ATTATTAATTTATGACCTTCTCTCTTATGTAAGGAGCAATTAATTAATTAATTAATTA 721
Db 578 AACATCAATTAATTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTGTTCTG 637
Oy 722 AAGATGGGAACATGAGCAAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 781
Db 638 ATGATTAATTTCAATTAATTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 697
Oy 782 ATATTTTGCAGAAATATAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 841
Db 698 GTATTTTAAAGTATTAAGCAAGCAATTAATTTCAATTAATTAATTAATTAATTAATTA 757
Oy 842 ATATTTATCTTGA 854
Db 758 ATATGAATTTGA 770

RESULT 14

ABO67026/C

ID ABO67026 standard; DNA: 11964 BP.

XX AC ABO67026:

XX 28-AUG-2002. (first entry)
 DE Human angiogenesis associated polynucleotide SEQ ID NO 56.
 XX Human: angiogenesis; methylation; eye disease; glaucoma; tumour;
 KM inflammation; rheumatoid arthritis; diabetic retinopathy; antileucers;
 KM macular degeneration; inflammatory bowel disease; Crohn's disease;
 KM antihemetic; antiarthritic; antidiabetic; antipsoriatic;
 KM antiarteriosclerotic; ds.
 XX Homo sapiens.
 OS Homo sapiens.
 XX MO200246454-A2.
 XX 13-JUN-2002.
 PD 13-JUN-2002.
 XX 06-DEC-2001; 2001MO-EP14320.
 PF 06-DEC-2001; 2001MO-EP14320.
 PR 06-DEC-2000; 2000DE-1061338.
 XX (EPIC-) EPIDENOMICS AG.
 XX Schacht O;
 DR WPI: 2002-500450/53.
 XX
 PT New nucleic acid fragments from chemically treated
 PT angiogenesis-associated genes, useful for determining methylation
 PT status, e.g. in diagnosis or treatment of cancer
 XX
 PS Claim 1; SEQ ID NO 56; 41pp + Sequence Listing; German.
 XX
 CC The invention relates to a nucleic acid (I) comprising a segment of 18
 CC bases of chemically pretreated DNA of angiogenesis-associated genes (II)
 CC having sequences (ABQ66971-ABQ67178) or their complements. (I), also
 CC related oligomers, are used to evaluate the methylation status and/or
 CC single-nucleotide polymorphisms, in angiogenesis-related genes, for
 CC diagnosis and treatment of eye diseases, proliferative retinopathy,
 CC neovascular glaucoma, solid tumours, inflammation, rheumatoid arthritis,
 CC diabetic retinopathy, macular degeneration caused by neovascularisation,
 CC psoriasis, arteriosclerosis, inflammatory bowel diseases, ulcers and
 CC Crohn's disease.
 CC Note: The sequence data for this patent did not form part of the printed
 CC specification, but was obtained in electronic format directly from WIPO
 CC at ftp.wipo.int/pub/published_pct_sequences.
 XX
 SQ Sequence 11964 BP; 3935 A; 139 C; 2313 G; 5576 T; 1 other;
 Query Match 7.6%; Score 70.8; DB 24; Length 11964;
 Best Local Similarity 46.3%; Pred. No. 0.00026;
 Matches 378; Conservative 0; Mismatches 428; Indels 11; Gaps 4;
 OY 53 ACATTATATAAATTTCTAAATAACAGAAATGATTTTAACTTACTTACTGCTATTTC 112
 DB 1496 ACTTAAATTAATTTCTTATTAATAAAATCCTCTATATATTAATAAATACTAATAA 1437
 OY 113 TGTATCTCTAGAGTAATACATTTAATTAAGAGAAAAATGAAAAGATTACATC- 171
 DB 1436 TTTAATACATAAATAAATAAATACTTATATCAATAAATAAATAAATAAATAATATCATCT 1377
 OY 172 -ATCAAAATGTTTTCATATTAATACAGTACATGATTTTCACTTATTTCACTATCATCA 230
 DB 1376 AAACAAAAAATCTTAAATAAATACTATTTACCAACCATTCATATTAATAATTTCCCTTA 1317
 OY 231 AAGTGAATCTAAGAAACATTTGCAATGTTAAAGTAAAGTAAAGTAAAGTAAAGTAAAGTAA 290
 DB 1316 ACATTAACATTAATCTTATTAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA 1257
 OY 291 AACTCCTTATGATTAATAAGATTCGAGGTAATTTTCAACGACACACATTAACAT 350
 DB 1256 AACCATTAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA 1197

OY 351 TGAT-----ACTCAAAATATAGAGGAAGACATATTAATTAAGTTCGAAATGCTT 403
 DB 1196 AATTCAACCTCATTTCAATTAATTAACGAATATCAAAATCAAAACAAAATATACCTTTACTT 1137
 OY 404 ATGAGGCCCTCTCAAAATTTTAAACGAGATGATCATATGTTTGGATTATTTTATA 463
 DB 1136 ATCAAAATTAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA 1077
 OY 464 TTCTTAATTTCTACACCGGTGAGACATCTATGAGAGAAATTTACGCCCTGCTCAAAATATA 523
 DB 1076 ACCTTAACGAAAAACATTTTATTAATATATCTATCAAAACCTTA-ACATTAACAAACAAATTT 1018
 OY 524 AAGTAATCATTAATTTATTTGGAAATCTATTTATTTGGGAAATCTCAACAGAACTTAA 583
 DB 1017 AATTCAACATTCATTTAAATTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 958
 OY 584 ATAAAGATTTATTTTGAAGAAAGATATCTTAATTTTCAAGAAATTTGACTTTAAATCA 643
 DB 957 ATATATTAATTAATTTATTTTAAACATTTTATTAACCAACCAAAATAAATAAATAAATAA 898
 OY 644 GAAATACCTTATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 703
 DB 897 AATTAAACCTCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 838
 OY 704 GAATCAAAATTTGGCAAAAGATGGAACATGAGCAATATAGACTTTATTTGACTCACCA 763
 DB 837 ATATTTATTTCTTCAATCAAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 778
 OY 764 ATGAAGGAGCTAGATGATTAATTTTGCAAAATTAATTAATTAATTAATTAATTAATTAATTAAT 823
 DB 777 CTAAACATCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 719
 OY 824 AGAATTTAGTATTTGATTAATTTATTTATTTCTGAAAATA 860
 DB 718 AAAAATACTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 682
 RESULT 15
 ID ABQ75107/c standard; cDNA: 4985 BP.
 XX ABQ75107:
 AC ABQ75107:
 XX 01-NOV-2002 (first entry)
 DE Anopheles gambiae odourant receptor 2 genomic DNA SEQ ID NO:10.
 XX
 XX Anopheles gambiae; mosquito; olfactory gene; arrestin 1; pest control;
 KM odourant receptor; olfaction; gene; ds.
 XX
 OS Anopheles gambiae.
 XX WO200259274-A2.
 XX 01-AUG-2002.
 PE 28-JAN-2002; 2002MO-US02549.
 PR 26-JAN-2001; 2001US-264649P.
 PR 24-JAN-2002; 2002US-0056405.
 XX (UYVA-) UNIV VANDERBILT.
 XX Zwibel LJ;
 XX WPI: 2002-627421/67.
 DR P-PSDB: ABP52835.
 XX
 PT New mosquito olfaction polypeptides and polynucleotides, useful for
 PT mosquito management, i.e. controlling the pest and disease vectors, or
 PT for identifying pest control agents
 XX
 PS Disclosure; Fig 4a; 96pp; English.

XX The present invention describes a purified Anopheles gambiae olfaction
 CC polypeptide comprising a 383, 394, 380, 411, 412, 391, 157 or 401 residue
 CC amino acid sequence (see ABP52833 to ABP52840) (S1), a conservatively
 CC modified amino acid sequence of them, or a sequence of (S1) with at least
 CC 20 consecutive residues. Also described: (1) an isolated polynucleotide
 CC comprising: (a) a nucleotide sequence encoding the purified Anopheles
 CC gambiae olfaction polypeptide; or (b) a nucleotide sequence that
 CC hybridises under stringent conditions to a hybridisation probe comprising
 CC (see ABQ5102 to ABQ5105 and ABQ5110 to ABQ5113) (S2), or its
 CC complement; and (2) a method for identifying an agent that binds to
 CC mosquito olfaction molecules comprising: (a) providing an isolated
 CC mosquito olfaction molecule; (b) contacting a test agent with the
 CC isolated mosquito olfaction molecule; and (c) detecting specific binding
 CC of the test agent to the isolated mosquito olfaction molecule, where the
 CC olfaction-binding compound. The mosquito olfaction molecules are useful
 CC for mosquito management, i.e., controlling this pest and disease vector.
 CC A method from the present invention of screening for substances that
 CC modulate arrestin-odourant receptor interaction is useful for identifying
 CC odourant receptor 2 genomic DNA from the present invention.
 CC N.B. The features given in figure 4a are tentative and do not directly
 CC encode SEQ ID NO:6 (ABP52835).

SQ Sequence 4985 BP; 1319 A; 1058 C; 990 G; 1618 T; 0 other;

Query Match 7.4%; Score 69.4; DB 24; Length 4985;
 Best Local Similarity 44.0%; Pred. No. 0.00045;

Matches 339; Conservative 0; Mismatches 431; Indels 1; Gaps 1;

QY 99 TTACTGCTATTTCATGATTCCTCGACGAGTAACTTAAATTAAGGAGAAATGAA 158
 DB 3109 TTATTATTTTATTATATGATTACTGGAATTAATTAGCAATAAAAAACAATATAAT 3050
 QY 159 AAAGATTAAACATCAATCAAAATAGTTTTCATTAATTCAGTACTGATTTCTACTATT 218
 DB 3049 AAACATATATAGATTAACACACACATATATAAGAACACACACACATATATTA 2990
 QY 219 CACCTATCATCAAAAGTACTTAAGAAAGACATTTGCAATGTTAAAGTATTCTTTA 278
 DB 2989 GAAATATATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2930
 QY 279 TGCATACACTTAATCTCTTATGATTAATTAAGATTCGAGGTAATTTTCAACGACACA 338
 DB 2929 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2870
 QY 339 CACATTAACATGATTAATCAAAAATTAAGAGGAAAGACTATTAATTAATTAATTA 398
 DB 2869 ATAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2810
 QY 399 GTCTTATGAGGCTCTCAAAAATTTAAACGAGATGATCATGATGTTTGGATTATT 458
 DB 2809 ATAAATTAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2750
 QY 459 TTATATTTCTTAATCTCACACCGGAGTACATCTATGAGAGAAATTACCGCTCAAAA 518
 DB 2749 ATAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2690
 QY 519 TAATTAAGTAAATCAATAATTAATTTGGAAATCTATTATTTTGGGAGAAATCTCAACAGA 578
 DB 2689 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2631
 QY 579 CTTAAATTAACAGATTATTCTAGAAAGAAATGTAATCTTCCAGAAATTTGACTTTAA 638
 DB 2630 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2571
 QY 639 AATCAGAAATTAATCTTATGATTAATTAATTAATTAATTAATTAATTAATTAATTA 698
 DB 2570 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2511
 QY 699 CGGAGAAATGGAATTTGGCAAAAAGATGGAAACATGAGCAATTAATTAATTTGACTC 758

DB 2510 TAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2451
 QY 759 ACCAAATGAAGGAGCTAGATCAGATATTTTGGCAAAATTAAGATTAATTAATTAATTA 818
 DB 2450 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2391
 QY 819 TATGAAGAACTTATGATTCATTTGCAATTTTCTTGAATAATTAATTAATTAATTA 869
 DB 2390 TAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2340

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